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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/841,537 | 04/24/2001 | Shunpei Yamazaki | SEL 255 | 5906 |

7590

06/10/2003

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EXAMINER

PRENTY, MARK V

ART UNIT

PAPER NUMBER

2822

13

DATE MAILED: 06/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/841,537

Applicant(s)
YAMAZAKI et al.

Examiner
Prenty

Art Unit
2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 6, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed. .
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 10 6) ☐ Other:

This non-final Office Action is in response to the amendment filed May 6, 2003.

As a preliminary matter, the IDS filed December 26, 2002 was not entered in the PTO file until January 21, 2003 (i.e., after the January 3, 2003 mail date of the previous Office Action, which was prepared on December 23, 2002). In any event, that IDS has now been considered (see the initialed Form PTO-1449 attached to this Office Action).

Claims 1-35 are rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al. (United States Patent Application Publication US 2001/0040655, submitted in the IDS filed December 26, 2002).

With respect to independent claim 1, Yamazaki et al. disclose a semiconductor device (see the entire patent, particularly the Fig. 19 disclosure) comprising: a thin film transistor 801 comprising a semiconductor layer over a substrate and a gate electrode with an insulating film interposed therebetween; a plurality of projected portions 701, 702 over said substrate; an interlayer insulating film 804 covering said thin film transistor and said plurality of projected portions, said interlayer insulating film having a projected and recessed surface, and said interlayer insulating film comprising a resin film having a viscosity of 10 cp or more (see paragraph [0190]); and a pixel electrode 805 electrically connected to said thin film transistor, said pixel electrode having a projected and recessed surface on said interlayer insulating film.

Claim 1 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 2, Yamazaki et al's projected portions 701, 702 comprise a same material as one selected from from the group consisting of a semiconductor layer, a gate electrode, and a gate insulating film of said thin film transistor.

Claim 2 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 3, Yamazaki et al's projected portions 701, 702 have different heights or different shapes.

Claim 3 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 4, Yamazaki et al's pixel electrode 805 comprises one selected from the group consisting of Al, Ag, and a lamination of Al and Ag (see paragraph [0022], for example).

Claim 4 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 5, Yamazaki et al's semiconductor device further comprises a first light shielding portion comprising laminated layers of a first color layer and a second color layer; and a second light shielding portion comprising laminated layers of said first color layer and a third color layer; wherein said first light shielding portion and said second light shielding portion are formed to overlap in an interval between an arbitrary one of said pixel electrode and said pixel electrode contiguous to said arbitrary one of said pixel electrode (see paragraph [0017], for example).

Claim 5 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 6, Yamazaki et al's first color layer comprises a red color, said second color comprises a blue color, and said third color layer comprises a green color (see paragraph [0019], for example).

Claim 6 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 7, Yamazaki et al's first light shielding portion and second light shielding portion are provided over an opposed substrate (see paragraph [0021], for example).

Claim 7 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 8, Yamazaki et al's semiconductor device is a reflection type liquid crystal display device (see paragraph [0022], for example).

Claim 8 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 9, Yamazaki et al's semiconductor device is at least one selected from the group consisting of a personal computer, a video camera, a mobile computer, a portable telephone, a goggle-type display, a digital camera, a player using a recording medium, and a portable electronic book (see paragraphs [0227] and [0228], for example).

Claim 9 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to independent claim 10, Yamazaki et al. disclose a semiconductor device (see the entire patent, particularly the Fig. 19 disclosure) comprising: a thin film transistor 801 comprising a semiconductor layer on an insulating surface, an insulating film on said semiconductor layer and a gate electrode on said insulating film; a plurality of projected portions 701, 702 on said insulating surface; an interlayer insulating film 804 covering said thin film transistor and said plurality of projected

portions, said interlayer insulating film having a projected and recessed surface, and said interlayer insulating film comprising a resin film having a viscosity of 10 cp or more (see paragraph [0190]); and a pixel electrode 805 having a projected and recessed surface on said interlayer insulating film, and electrically connected to said thin film transistor.

Claim 10 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 11, Yamazaki et al's projected portions 701, 702 comprise a same material as one selected from the group consisting of a semiconductor layer, a gate electrode, and a gate insulating film of said thin film transistor.

Claim 11 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 12, Yamazaki et al's projected portions 701, 702 have different heights or different shapes.

Claim 12 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 13, Yamazaki et al's pixel electrode 805 comprises one selected from the group consisting of Al, Ag, and a lamination of Al and Ag (see paragraph [0022], for example).

Claim 13 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 14, Yamazaki et al's semiconductor device further comprises a first light shielding portion comprising laminated layers of a first

color layer and a second color layer; and a second light shielding portion comprising laminated layers of said first color layer and a third color layer; wherein said first light shielding portion and said second light shielding portion are formed to overlap in an interval between an arbitrary one of said pixel electrode and said pixel electrode contiguous to said arbitrary one of said pixel electrode (see paragraph [0017], for example).

Claim 14 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 15, Yamazaki et al's first color layer comprises a red color, said second color comprises a blue color, and said third color layer comprises a green color (see paragraph [0019], for example).

Claim 15 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 16, Yamazaki et al's first light shielding portion and second light shielding portion are provided over an opposed substrate (see paragraph [0021], for example).

Claim 16 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 17, Yamazaki et al's semiconductor device is a reflection type liquid crystal display device (see paragraph [0022], for example).

Claim 17 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 18, Yamazaki et al's semiconductor device is at least one selected from the group consisting of a personal computer, a video

camera, a mobile computer, a portable telephone, a goggle-type display, a digital camera, a player using a recording medium, and a portable electronic book (see paragraphs [0227] and [0228], for example).

Claim 18 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to independent claim 19, Yamazaki et al. disclose a semiconductor device (see the entire patent, particularly the Fig. 19 disclosure) comprising: a thin film transistor comprising a semiconductor layer over a substrate and a gate electrode with an insulating film interposed therebetween; a plurality of projected portions 701, 702 over said substrate; an interlayer insulating film 804 covering said thin film transistor and said plurality of projected portions, said interlayer insulating film having a projected and recessed surface, and said interlayer insulating film comprising a resin film having a viscosity of 10 cp or more (see paragraph [0190]); and a pixel electrode 805 electrically connected to said thin film transistor, said pixel electrode having a projected and recessed surface on said interlayer insulating film.

Claim 19 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 20, Yamazaki et al's projected portions 701, 702 have different heights or different shapes.

Claim 20 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 21, Yamazaki et al's pixel electrode 805 comprises one selected from the group consisting of Al, Ag, and a lamination of Al and Ag (see paragraph [0022], for example).

Claim 21 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 22, Yamazaki et al's semiconductor device further comprises a first light shielding portion comprising laminated layers of a first color layer and a second color layer; and a second light shielding portion comprising laminated layers of said first color layer and a third color layer; wherein said first light shielding portion and said second light shielding portion are formed to overlap in an interval between an arbitrary one of said pixel electrode and said pixel electrode contiguous to said arbitrary one of said pixel electrode (see paragraph [0017], for example).

Claim 22 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 23, Yamazaki et al's first color layer comprises a red color, said second color comprises a blue color, and said third color layer comprises a green color (see paragraph [0019], for example).

Claim 23 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 24, Yamazaki et al's first light shielding portion and second light shielding portion are provided over an opposed substrate (see paragraph [0021], for example).

Claim 24 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 25, Yamazaki et al's semiconductor device is a reflection type liquid crystal display device (see paragraph [0022], for example).

Claim 25 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 26, Yamazaki et al's semiconductor device is at least one selected from the group consisting of a personal computer, a video camera, a mobile computer, a portable telephone, a goggle-type display, a digital camera, a player using a recording medium, and a portable electronic book (see paragraphs [0227] and [0228], for example).

Claim 26 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to independent claim 27, Yamazaki et al. disclose a semiconductor device (see the entire patent, particularly the Fig. 19 disclosure) comprising: a thin film transistor 801 comprising a semiconductor layer on an insulating surface, an insulating film on said semiconductor layer and a gate electrode on said insulating film; a plurality of projected portions 701, 702 on said insulating film; an interlayer insulating film 804 covering said thin film transistor and said plurality of projected portions, said interlayer insulating film having a projected and recessed surface, and said interlayer insulating film comprising a resin film having a viscosity of 10 cp or more (see paragraph [0190], for example); and a pixel electrode 805 having a projected and recessed surface on said interlayer insulating film and electrically connected to said thin film transistor.

Claim 27 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 28, Yamazaki et al's projected portions comprise the same material as the gate electrode of said thin film transistor.

Claim 28 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 29, Yamazaki et al's projected portions 701, 702 have different heights or different shapes.

Claim 29 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 30, Yamazaki et al's pixel electrode 805 comprises one selected from the group consisting of Al, Ag, and a lamination of Al and Ag (see paragraph [0022], for example).

Claim 30 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 31, Yamazaki et al's semiconductor device further comprises a first light shielding portion comprising laminated layers of a first color layer and a second color layer; and a second light shielding portion comprising laminated layers of said first color layer and a third color layer; wherein said first light shielding portion and said second light shielding portion are formed to overlap in an interval between an arbitrary one of said pixel electrode and said pixel electrode contiguous to said arbitrary one of said pixel electrode (see paragraph [0017], for example).

Claim 31 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 32, Yamazaki et al's first color layer comprises a red color, said second color comprises a blue color, and said third color layer comprises a green color (see paragraph [0019], for example).

Claim 32 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 33, Yamazaki et al's first light shielding portion and second light shielding portion are provided over an opposed substrate (see paragraph [0021], for example).

Claim 33 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 34, Yamazaki et al's semiconductor device is a reflection type liquid crystal display device (see paragraph [0022], for example).

Claim 34 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

With respect to dependent claim 35, Yamazaki et al's semiconductor device is at least one selected from the group consisting of a personal computer, a video camera, a mobile computer, a portable telephone, a goggle-type display, a digital camera, a player using a recording medium, and a portable electronic book (see paragraphs [0227] and [0228], for example).

Claim 35 is thus rejected under 35 U.S.C. §102(e) as being anticipated by Yamazaki et al.

The applicant's arguments are moot in view of the new ground of rejection.

Registered practitioners can telephone examiner Prenty at (703) 308-4939. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the application's Serial Number. Technology Center 2800's general telephone number is (703) 308-0956.